

Remarks

By this amendment, claims 1, 12, 16, 24, 34, 35, and 39 have been amended. No claims have been cancelled or newly added. Therefore, claims 1-39 remain pending. Support for the instant amendments is provided throughout the as-filed application. It is believed no new matter has been added. In view of the following comments, allowance of all the claims pending in the application is respectfully requested.

Rejection Under 35 U.S.C. §112, second paragraph

Claims 12, 16, and 35 were rejected under 35 U.S.C. §112, second paragraph as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as their invention. Applicant traverses.

Applicant has amended claims 12 and 35. Further, regarding claim 16, the Office Action alleged that it was not clear how the first side may be non-coinciding with the second side of the patterning device. According to an exemplary embodiment, the first and second sides are on different planar surfaces. For example, Figure 4 shows that the second side S2 extends in a plane (i.e., the surface of S2) that is non-coinciding with the first side S1.

Accordingly, Applicant requests that this rejection be withdrawn.

Rejection Under 35 U.S.C. §102

Claims 1-7, 10, 16, 17, 21-30, and 33 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Japanese Patent Application No. 11-040657 to Sato ("Sato"). Applicant traverses.

Regarding claim 1, Applicant submits that the cited portions of Sato do not at least disclose a lithographic apparatus wherein, *inter alia*, the support

is associated with a clamping device which is arranged to automatically and dynamically subject a second side of the patterning device to at least one second force, at least when the support is accelerated.

The Office Action alleged that clamper 63 is a clamping device which is arranged to subject a second side of the patterning device to at least one second force, motor 66 actively puts clamping force on the patterning device, and spring 72 passively puts clamping force on the patterning device. However, clamper 63, motor 66, and spring 72 do not automatically and dynamically subject a second side of the patterning device to at least one second force, at least when the support is accelerated. In particular, Sato describes that motor 66 rotates cam 67 to cause press implement 71 to clamp reticle 3. Further, Sato describes that screw cap 73 adjusts the spring power of spring 72, thereby adjusting the reticle thrust by press implement 71. See Sato, paragraphs [0012]-[0014].

The cited portions of Sato do not describe that spring 72 automatically and dynamically subjects a second side of the patterning device to at least one second force because it appears that spring 72 applies a fixed spring compression force which must be adjusted manually. Therefore, the force that spring 72 provides is neither automatic since it must be adjusted manually, nor dynamic since the spring compression force remains fixed.

Further, the cited portions of Sato do not describe that motor 66 automatically and dynamically subjects a second side of the patterning device to at least one second force because motor 66 appears to move clamp 63 only between an engaged position and a non-engaged position. Therefore, motor 66 does not describe automatically and dynamically subjecting a second side of the patterning device to at least one second force because the force provided is fixed when motor 66 is engaged and no force is provided when motor 66 is not engaged.

Regarding claim 16, Applicant submits that the cited portions of Sato do not at least disclose a support constructed to support a patterning device which is capable of imparting a radiation beam with a pattern in its cross-section to form a patterned radiation beam comprising wherein, *inter alia*, the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device, extending in a plane that is non-coinciding with the first side, to an additional clamping force, at least when the support is accelerated.

The Office Action alleged that reticle stage 4 is a support and clamper 63 is a clamping device which is arranged to subject a second side of the patterning device to an additional clamping force. The cited portions of Sato, however, do not describe that clamper 63 is releasably attached to the support. In particular, Figures 2 and 3 appear to show that clamper 63 is fixed to reticle stage 4. Further, the number, alignment, and complexity of the separate parts associated with clamper 63 suggest that clamper 63 is not releasably attached to the support.

Regarding claim 24, Applicant submits that the cited portions of Sato do not at least disclose a device manufacturing method comprising, *inter alia*, automatically and dynamically subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated.

As discussed above, clamper 63, motor 66, and spring 72 do not automatically and dynamically subject a second side of the patterning device to at least one second force. In particular, the cited portions of Sato do not describe that spring 72 automatically and dynamically subjects a second side of the patterning device to at least one second force because it appears that spring 72 applies a fixed spring compression force which must be adjusted manually. Therefore, the force that spring 72 provides is neither automatic

since it must be adjusted manually, nor dynamic since the spring compression force remains fixed. Further, the cited portions of Sato do not describe that motor 66 automatically and dynamically subjects a second side of the patterning device to at least one second force because motor 66 appears to move clamp 63 only between an engaged position and a non-engaged position. Therefore, motor 66 does not describe automatically and dynamically subjecting a second side of the patterning device to at least one second force because the force provided is fixed when motor 66 is engaged and no force is provided when motor 66 is not engaged.

For at least these reasons, the rejection of claims 1, 16, and 24 should be withdrawn. Claims 2-7, 10, 17, 21-23, 25-30, and 33 depend from claims 1, 16, or 24 and therefore are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1, 16, and 24 respectively, as well as for the features they recite individually.

Claim 39 was rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent Application Publication No. 2003/0197841 to Araki et al. ("Araki"). Applicant traverses.

Regarding claim 39, Applicant submits that the cited portions of Araki do not at least disclose a method comprising, *inter alia*, releasably attaching a clamping device to the support.

The Office Action alleged that reticle holder 218 and reticle stage 220 are a support. The Office Action, however, does not address the aspect of a clamping device. Further, the cited portions of Araki do not appear to disclose releasably attaching a clamping device to the support. In particular, even assuming *arguendo* that the cited portions of Araki describe a clamping device (which Applicant does not concede), the cited portions of Araki do not

appear to describe releasably attaching a clamping device to reticle holder 218 and reticle stage 220.

For at least the reason that the cited portions of Araki do not disclose each and every claim aspect, the rejection of claim 39 should be withdrawn.

Rejection Under 35 U.S.C. §103

Claims 18-20 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Sato in view of Examiner's Official Notice. Applicant traverses.

As discussed above, claim 16 is allowable over the cited portions of Sato for the reasons noted above with respect to claim 16. Further, Applicant submits that the Office Action has not provided any documentary evidence that it would have been obvious, *inter alia*, that the support is associated with a clamping device which is releasably attached to the support and arranged to subject a second side of the patterning device to an additional clamping force. To the extent that the Examiner continues to rely on official notice, Applicant respectfully submits that the analysis required by MPEP §2144.03 must be performed. In addition, Applicant respectfully requests documentary evidence that such aspects are well known.

Claims 18-20 depend from claim 16 and therefore are allowable over the cited portions of Sato and Examiner's Official Notice for the reasons noted above with respect to claim 16, as well as for the features they recite individually.

For at least these reason, the rejection of claims 18-20 should be withdrawn.

Claims 8, 11, 12, 14, 15, 31, 34, 35, 37, and 38 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Araki alone or over Sato further in view of Araki. Applicant traverses.

For the reasons discussed above, claims 1 and 24 are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1 and 24 respectively.

Furthermore, even assuming *arguendo* that the cited portions of Sato and Araki are properly combinable (which Applicant does not concede), the cited portions of Araki do not address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Araki do not disclose or teach, *inter alia*, the support is associated with a clamping device which is arranged to automatically and dynamically subject a second side of the patterning device to at least one second force, at least when the support is accelerated, as recited in claim 1. Further, the cited portions of Araki do not disclose or teach, *inter alia*, automatically and dynamically subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, as recited in claim 24.

Claims 8, 11, 12, 14, 15, 31, 34, 35, 37, and 38 depend from claims 1 or 24 and therefore are allowable over the cited portions of Araki or the cited portions of Sato in view of the cited portions of Araki for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features they recite individually.

For at least these reasons, the rejection of claims 8, 11, 12, 14, 15, 31, 34, 35, 37, and 38 should be withdrawn.

Claims 9 and 32 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Sato in view of U.S. Patent Application Publication No. 2005/0068512 to Shiraishi ("Shiraishi"). Applicant traverses.

For the reasons discussed above, claims 1 and 24 are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1 and 24 respectively.

Furthermore, even assuming *arguendo* that the cited portions of Sato and Shiraishi are properly combinable (which Applicant does not concede), the cited portions of Shiraishi do not address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Shiraishi describe that second holding member 66 is screwed to first holding member 62. The cited portions of Shiraishi, however, do not disclose or teach, *inter alia*, that the support is associated with a clamping device which is arranged to automatically and dynamically subject a second side of the patterning device to at least one second force, at least when the support is accelerated, as recited in claim 1. Further, the cited portions of Shiraishi do not disclose or teach, *inter alia*, automatically and dynamically subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, as recited in claim 24.

Claims 9 and 32 depend from claims 1 or 24 and therefore are allowable over the cited portions of Sato and Shiraishi for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features they recite individually.

For at least these reasons, the rejection of claims 9 and 32 should be withdrawn.

Claims 13 and 36 were rejected under 35 U.S.C. §103 as allegedly being unpatentable over Sato in view of U.S. Patent No. 4,795,518 to Meinel et al. ("Meinel"). Applicant traverses.

For the reasons discussed above, claims 1 and 24 are allowable over the cited portions of Sato for the reasons noted above with respect to claims 1 and 24 respectively.

Furthermore, even assuming *arguendo* that the cited portions of Sato and Meinel are properly combinable (which Applicant does not concede), the cited portions of Meinel do not address all of the deficiencies of the cited portions of Sato. In particular, the cited portions of Meinel describe O-rings in the surface of a vacuum chuck. The cited portions of Meinel, however, do not disclose or teach, *inter alia*, that the support is associated with a clamping device which is arranged to automatically and dynamically subject a second side of the patterning device to at least one second force, at least when the support is accelerated, as recited in claim 1. Further, the cited portions of Meinel do not disclose or teach, *inter alia*, automatically and dynamically subjecting a second side of the patterning device to at least one second force normal to the direction of the acceleration of the support, at least when the support is accelerated, as recited in claim 24.

Claims 13 and 36 depend from claims 1 or 24 and therefore are allowable over the cited portions of Sato and Meinel for the reasons noted above with respect to claims 1 and 24 respectively, as well as for the features they recite individually.

For at least these reasons, the rejection of claims 9 and 32 should be withdrawn.

Conclusion

Having addressed each of the foregoing rejections, it is respectfully submitted that a full and complete response has been made to the outstanding Office Action and, as such, the application is in condition for allowance. Notice to that effect is respectfully requested.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

If an extension of time is necessary to prevent abandonment of this application, then such an extension of time is hereby petitioned for under 37 C.F.R. §1.136(a). Any fees required (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 033975 (Ref. No. **081468-0324818**).

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